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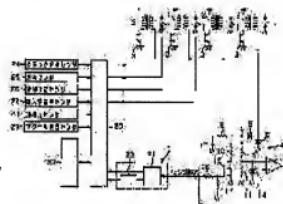
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(54) COMBUSTION CONTROL DEVICE FOR ENGINE

(57) Abstract:

**PROBLEM TO BE SOLVED:** To set an optimum ignition timing based on an ion current waveform detected through an ignition plug.

**SOLUTION:** A combustion control device for an engine is formed such that an ion current waveform flowing to an ignition plug 1 after the lapse of a spark discharge period is detected by an ion current detecting circuit 4, a signal processing of the ion current waveform is effected by a low-pass filter circuit 21 and a high-pass filter circuit 22, and based on the ion current value processed by the low-pass filter circuit 21, an ion current value collated to a combustion pressure is detected by a control circuit 23, and based on an ion current value processed by the high-pass filter circuit 22, an ion current vibration value correlated to a knocking is calculated. Further based on the ion current vibration value, the presence of a knocking is discriminated, and an ignition timing advance angle is advanced such that when knocking non-detecting state is produced, an actual ignition crank position obtained from a maximum combustion pressure crank position calculated based on the peak value of an ion current approaches an optimum ignition crank position.



## LEGAL STATUS

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